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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,637	04/11/2001	Alfons Gail	10537/96	1822

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KENYON & KENYON
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

BANNAPRADIST, LISA M

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 01/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/832,637

Applicant(s)

GAIL ET AL.

Examiner

Lisa Bannapradist

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is hereby withdrawn. Applicant's amendment submission after final filed on December 10, 2002 has been entered.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. **Claims 1-5, 7, 10, 11 and 14** are rejected under 35 U.S.C. 103(a) as being obvious over PCT WO98/53229 to Werner in view of US 5,066,025 to Hanrahan.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(a).

In regard to claims 1-5, 7, 10 and 11: Werner discloses a brush seal comprising a bristle housing (2) including a cover plate (3) and a supporting plate (4), bristles (5), circumferential surface (9), two side surfaces (vertical portions of 3 and 4), a first positioning arrangement on a side surface (portion of 4 abutting 2), and a second positioning arrangement on a rotor (portion of 2 abutting 4). The cover plate includes a flanged section (7) with an undercut (at 6) and inner surface (at 8) and the supporting plate includes an axial section (horizontal portion of 4). The cover plate and supporting plate are formed by non-cutting shaping and deep drawing (col. 1, line 66).

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Werner fails to disclose a positive-locking arrangement between the first positioning arrangement and the second positioning element. However, Hanrahan teaches as prior art a first positioning arrangement (30 in Fig. 2) and a second positioning arrangement defined as a recess (32) substantially as claimed for the purpose of preventing incorrect mounting of the bristle housing (col. 2, lines 32-34). It is further inherent from the drawings that Hanrahan's features as cited above will also prevent relative rotation between the first and second positioning arrangements given the nature of the projection in Fig 2. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to incorporate the positive locking positioning arrangements from Hanrahans' invention into Werner's invention with the motivation (as cited by Hanrahan in col. 2, lines 32-34) of preventing incorrect mounting of the bristle housing.

In regard to claim 14: Werner also fails to disclose angled bristles. Hanrahan states that it is known in the art that bristles are usually located at an angle with respect to the radius for the purpose of maintaining proper sliding relationship with the rotor (col. 1, lines 21-28). Where the range of article sizes disclosed in the prior art envelops the recited range, and there is no showing of criticality of the recited range, such recited range would have been one of ordinary skill in the art. In re Reven, 390 F.2d 997, 156 USPQ 679 (CCPA 1968).

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4. **Claims 6, 8 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Werner in view of Hanrahan as applied to the claims above, and further in view of US 6,106,190 to Nakamura and in further view of US 3,042,159 to Anderson.

Werner and Hanrahan disclose applicant's invention except the welded projection or a projection formed of non-cut shaping. Nakamura teaches a projection (66b in Fig. 5b) on a first positioning element (66B) which fits into a recess (62b) of the second positioning element (60) to prevent the two elements from rotating with respect to one another. Nakamura further disclose a further embodiment having a welded projection (W in Fig. 6b) that serves the same purpose as the projection in Fig. 5b. The projection (W), formed during a non-cuttings shaping process also projects beyond one side surface and is lenticular in shape as claimed. Both projections function to prevent the first positioning arrangement, or the projection, from rotating with respect to the second positioning arrangement (60). Inasmuch as the references disclose these elements as art recognized equivalents, it would have been obvious to one of ordinary skill in the exercise art to substitute one for the other. In re Fout, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982). One skilled in the art would incorporate such projections with the motivation to prevent the first positioning element from rotating with respect to the second positioning element.

However, in Nakamura's second embodiment using the weld, a recess is not provided on the second positioning element (60). Anderson further teaches that during the spot-welding process, a recess will naturally form on the second positioning element (2). This recess engages the spot-weld. Thus, it would also have been obvious to one having ordinary skill in the art at the time of

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applicant's invention to have a recess engaging with the spot-weld, given the nature of the known spot-weld process.

5. **Claims 12-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Werner in view of Hanrahan and further in view of US 5,066,024 to Reisinger et al.

Werner and Hanrahan disclose the invention except the fastening methods as claimed. Reisinger teaches a pair of holes (7 and corresponding holes in housing) configured to receive a fastener for the purpose of providing a simple and detachable connection while still maintaining the operability of the seal (col. 1, line 60). It would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate holes and fasteners to Werner's invention for the purpose of providing a simple and detachable connection to other components.

Response to Arguments

6. Applicant's arguments filed December 10, 2002 have been fully considered but they are not persuasive.

7. In reply to applicant's argument that Hanrahan fails to disclose all of the limitation as set forth in claim 1: Hanrahan is only relied upon in a 103(a) type reference to disclose the positive locking feature of claim 1. Werner et al. is relied upon to teach the rest of the limitations as set forth in claim 1 (see Final office action dated August 8, 2002). Hanrahan indeed discloses as prior art in Figure 2 a first positioning arrangement (30 of Fig. 2) and a second positioning element (32 in Fig. 2). The first positioning arrangement does interact with the second

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positioning element in a positive-locking manner providing definite position of the housing for the purpose of ensuring proper mounting of the bristle housing (col. 2, lines 32-34). According to this figure, it is not necessary to have the first positioning element (20) as shorter in length than the housing.

8. It is inherently evident that the positioning elements of Fig. 2 will also function to prevent relative rotation of the first positioning element in relation to the second positioning element. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). In other words, applicant can have a different reason to incorporate Hanrahan's projection (to prevent rotation), than the motivation as provided from within the reference (to prevent incorrect mounting) as long as the reference is capable of performing as claimed.

9. In response to applicant's argument that the examiner's conclusion of obviousness to combine Werner with Hanrahan is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

10. In reply to applicant's argument that Werner fails to disclose all of the limitations as set forth in claim 1: Examiner agrees that Werner does not teach a positive-locking arrangement as set forth in claim 1 (see Final office action dated August 8, 2002). However, Werner is not

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relied upon to teach a positive locking positioning arrangement. This is accomplished with a 103(a) type rejection in further view of Hanrahan.

11. In response to applicant's argument that Anderson and Nakamura are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Anderson and Nakamura are both drawn to the endeavor of spot-welding methods to prevent rotation between relative parts.

12. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Therefore, it is not necessary for Werner, Nakamura, Anderson, or Reisinger to disclose a positive locking positioning arrangement since Hanrahan is cited for this purpose.

13. In regard to applicant's argument that the Werner reference (US 6,302,400) can not be used, the Werner reference has been replaced with the PCTWO98/53229 having effective date November 26, 1998, thus rendering applicant's arguments moot.

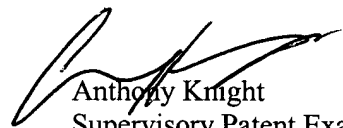
Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

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Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa Bannapradist whose telephone number is 703-305-4806. The examiner can normally be reached on Mon-Thurs and every other Friday from 8:30 - 6:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 703-308-3179. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-4177.



Anthony Knight
Supervisory Patent Examiner
Technology Center 3600

lb
December 20, 2002